

## INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

# E-Cycling

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### **Description:**

- Recycling involves the collecting, sorting, processing, and remanufacturing of waste materials into new products. The recycling of consumer electronics often is referred to as "E-cycling."
- Consumer electronic waste materials often are referred to as "E-waste" or "E-scrap." Consumer electronics include: televisions and monitors; computer hardware; various devices, such as joysticks, microphones and scanners; audio and stereo equipment; VCRs and DVD players; video cameras; telephones; fax and copying machines; cell phones; wireless devices and video game consoles.
- Consumer electronics contain valuable materials, including steel, glass, plastic, lead, mercury and cadmium that can be recycled and reused to manufacture new products.
- E-cycling helps ensure that heavy metals are safely managed and valuable materials reclaimed for the manufacture of new products.
- Recycling is a growth industry with many kinds of business opportunities, from collection and processing to manufacturing and new technologies. In Indiana, new recycling businesses create jobs for Hoosiers and help improve our economy.

## **Environmental Impacts:**

- Heavy metals, including lead, mercury, cadmium and hexavalent chromium, are used safely in a variety of consumer electronics. For example, a television or color cathode ray tube (CRT) monitor contains four pounds of lead on average.
- Because heavy metals can be harmful if released to the environment, old electronics should be managed as household hazardous waste rather than ordinary, household trash. Throwing old electronics in the trash can cause an unwanted release of these contaminants to landfill leachate and incinerator ash. Therefore, keeping used and discarded electronics out of the environment is important to prevent pollution.
- Supplying industries with recycled materials, rather than virgin resources extracted from forests and mines, saves energy, reduces air emissions and water discharges and conserves natural resources.

#### IDEM's Role:

- The Indiana Department of Environmental Management (IDEM) is responsible for protecting human health and the environment.
- IDEM provides technical and financial assistance for local recycling and household hazardous waste education and collection programs.
- IDEM provides technical and financial assistance to assist Indiana organizations with research, market development and the implementation of commercial manufacturing projects using recyclable items.

### Citizen's Role:

There are a number of actions every citizen can take to reduce the amount of waste from electronic products and conserve energy.

Recycled Paper

- Recycle your old electronics. Find community collection programs through your local solid waste management district.
- Select a dealer, retailer, or manufacturer that operates a product take-back program and allows consumers to return old equipment when purchasing new products or system upgrades.
- Donate good, used electronics. Donation is a way to ensure items are reused, and often provides disadvantaged populations with needed access to technology, creates job training opportunities and more.
- Know what to do with your television after February 17, 2009, when most television stations will broadcast only in digital. The United States Environmental Protection Agency (U.S. EPA) provides information about the transition, obtaining a digital converter box, proper disposal of old televisions, and finding an energy-efficient digital television on its Web site at
  - http://www.epa.gov/epaoswer/hazwaste/recycle/ecycling/tv-convert.htm.
- Choose products and services with the least environmental impact:
  - Look for the ENERGY STAR logo on new products to select energy efficient items.
  - Consider leasing instead of purchasing. This option allows returning old equipment to the vendor for upgrades or credits toward future purchases.
     Leasing also eliminates consumer responsibilities for proper product disposal or management because they do not own the equipment.
  - Look for features that allow electronics to be expanded or upgraded. This will extend the life of the electronic device and save you money. Expand and update your current electronics, if possible.
  - Consider purchasing refurbished or remanufactured electronics to reduce our amount of electronic waste.
  - Learn about products that have reduced toxics content (i.e., reduced lead, mercury, and other heavy metals), greater recycled content, higher energy efficiency, longer life expectancy, ease of upgradeability, and contain features that facilitate recycling at end-of-life. Resources to help you evaluate the efficiency and content of products are available online from <a href="http://www.epeat.net/">http://www.epeat.net/</a>.

#### More Information:

- For recycling old electronics and local community collection programs, check with your local solid waste management district. Visit the Recycle Indiana Web site at <a href="http://www.recycle.IN.gov">http://www.recycle.IN.gov</a> for a list of local recycling locations or contact IDEM's Office of Pollution Prevention and Technical Assistance toll free at (800) 988-7901.
- Businesses and residents without a municipal collection program also can find a listing of electronics management service providers by visiting the Indiana Recycling Coalition's e.Scrap Web site at <a href="http://www.escrapindiana.org/reuserecyclers/directory.html">http://www.escrapindiana.org/reuserecyclers/directory.html</a>.
- For specifics about E-scrap, visit the Indiana Recycling Coalition's e.Scrap Web site at <a href="http://www.escrapindiana.org/index.html">http://www.escrapindiana.org/index.html</a>.
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  converter box, proper disposal of old televisions, and finding an energy-efficient digital
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  <a href="http://www.epa.gov/epaoswer/hazwaste/recycle/ecycling/tv-convert.htm">http://www.epa.gov/epaoswer/hazwaste/recycle/ecycling/tv-convert.htm</a>.
- For U.S. EPA's ENERGY STAR program, visit <a href="http://www.energystar.gov/">http://www.energystar.gov/</a>. ENERGY STAR is a joint program of the U.S. EPA and the U.S. Department of Energy aimed at saving money and protecting the environment through energy efficient products and practices.

